



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
SEVERE
NORMAL

Machine Id
CATERPILLAR 325 DFM 12-09 (S/N 201699)
Component
Right Drive
Fluid
CAT DRIVE TRAIN 50 SAE (2 GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06196003	---	---
Sample Date		Client Info		03 May 2024	---	---
Machine Age	hrs	Client Info		13149	---	---
Oil Age	hrs	Client Info		6320	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	454	---	---
Chromium	ppm	ASTM D5185m	>10	5	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		11	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	106	---	---
Lead	ppm	ASTM D5185m	>10	<1	---	---
Copper	ppm	ASTM D5185m	>25	13	---	---
Tin	ppm	ASTM D5185m	>5	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

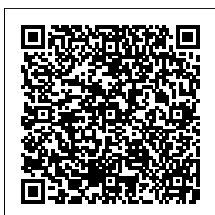
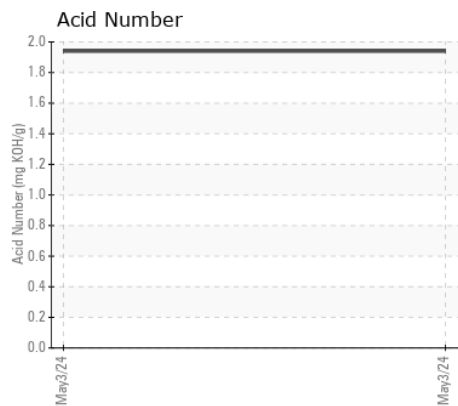
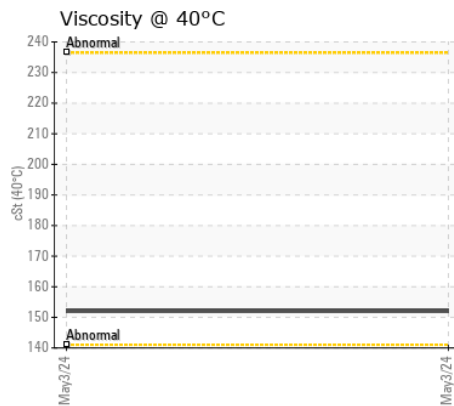
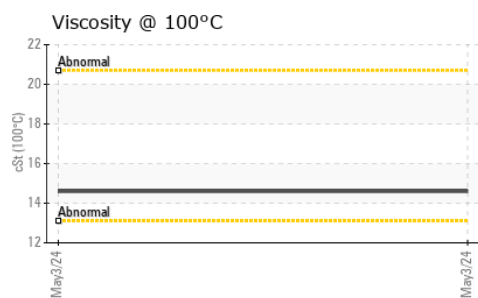
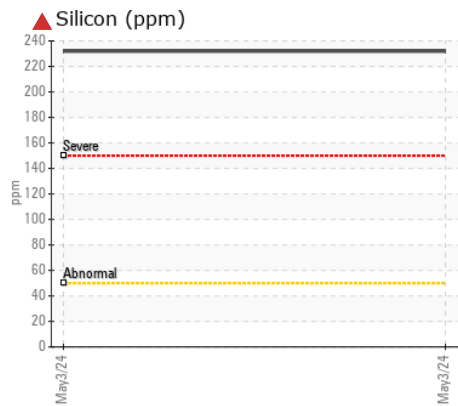
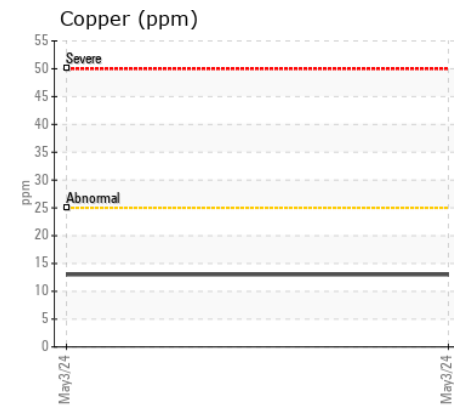
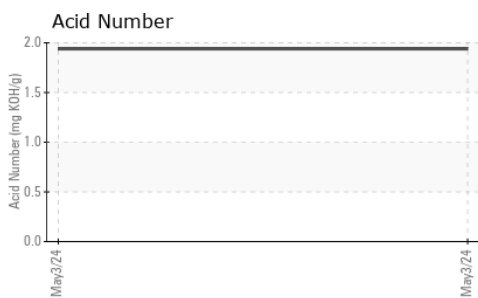
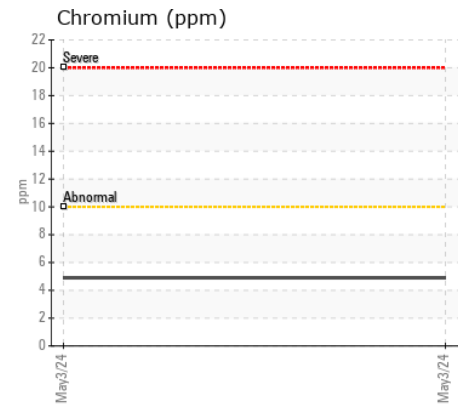
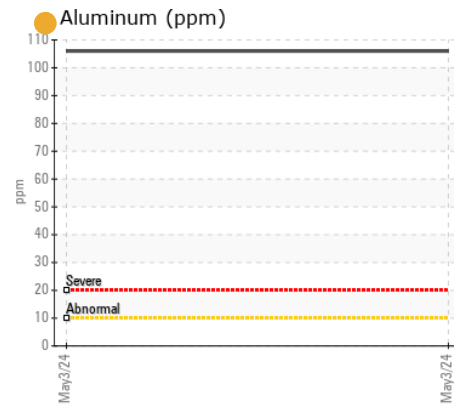
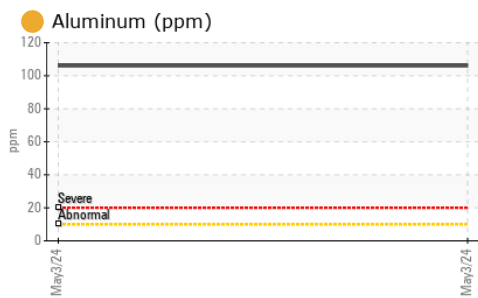
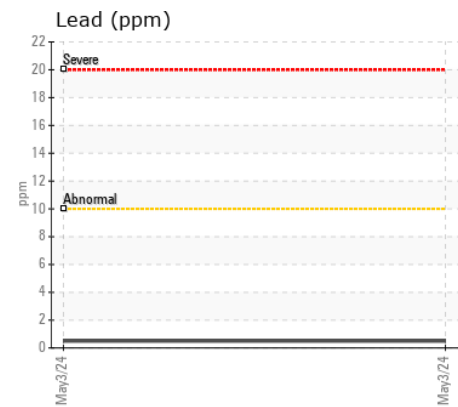
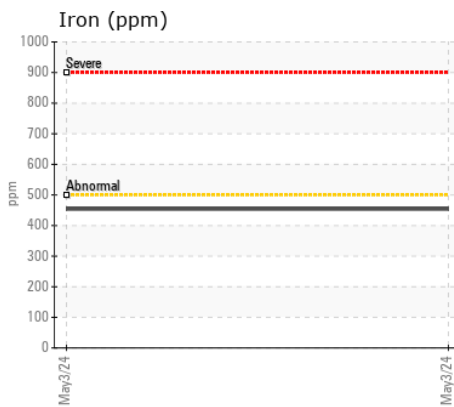
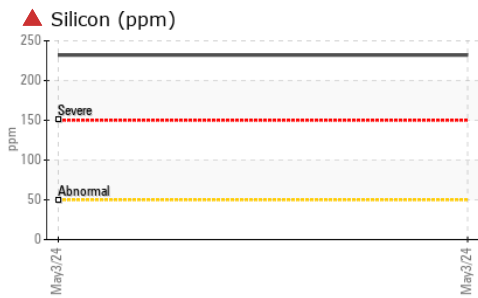
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>50	232	---	---
Potassium	ppm	ASTM D5185m	>20	8	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		14	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m		28	---	---
Calcium	ppm	ASTM D5185m		2658	---	---
Phosphorus	ppm	ASTM D5185m		998	---	---
Zinc	ppm	ASTM D5185m		1214	---	---
Sulfur	ppm	ASTM D5185m		8785	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.94	---	---
Visc @ 40°C	cSt	ASTM D445		152	---	---
Visc @ 100°C	cSt	ASTM D445		14.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270		94	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06196003 **Received** : 30 May 2024
Lab Number : 06196003 **Tested** : 02 Jun 2024
Unique Number : 11058126 **Diagnosed** : 02 Jun 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

KASKI LOGGING
 22411 HE CEDAR CREEK RD
 AMBOY, WA
 US 98601
 Contact: NATHAN BYRD

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: